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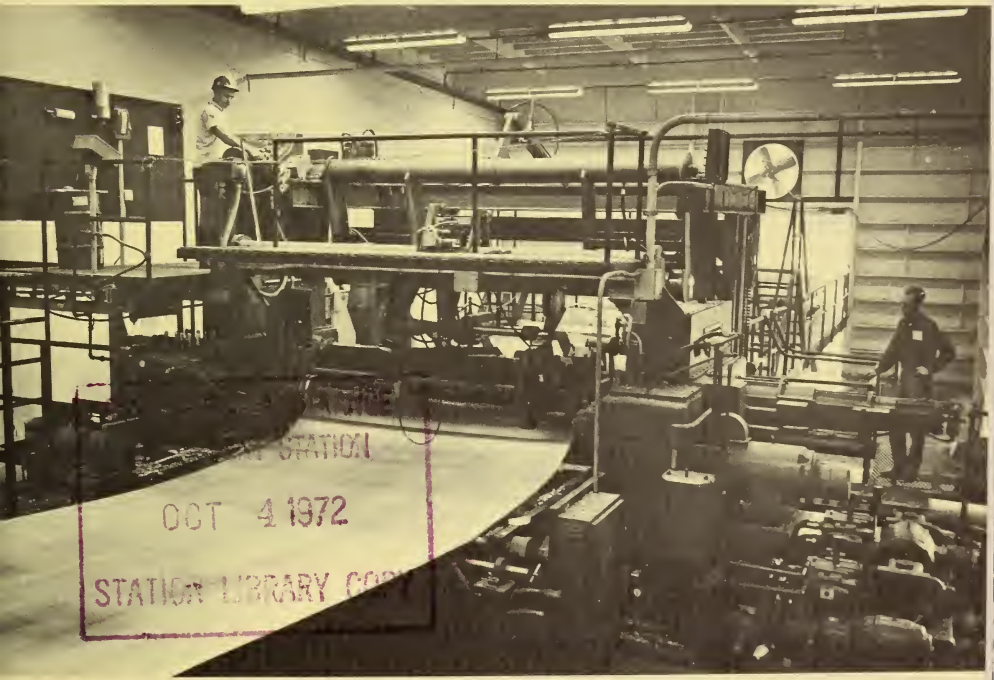
# The VENEER INDUSTRY in the Northeast

## A 5-year updating of data on veneer-log production and receipts



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by James T. Bones
and David R. Dickson

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NORTHEASTERN FOREST EXPERIMENT STATION, UPPER DARBY, PA.
FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE
RICHARD D. LANE, DIRECTOR

COVER PHOTO: Cutting veneer in a modern mill. Photo by courtesy of U.S. Plywood-Champion Papers, Inc.

# The VENEER INDUSTRY in the Northeast

## A 5-year updating of data on veneer-log production and receipts


### THE AUTHORS

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DAVID R. DICKSON, research forester, received his bachelor's degree in forestry from the University of New Hampshire in 1954. He joined the Lake States Forest Experiment Station in 1954. After serving 2 years in the Army he joined the Northeastern Forest Experiment Station in 1957. Since that time he has been stationed at Upper Darby, Pa., where he is associate mensurationist in the Experiment Station's Forest Survey unit.

# HIGHLIGHTS

EARLY IN 1969 a survey of the veneer industry in the Northeast was made to determine veneer-log receipts for calendar year 1968, by species and states of origin. The survey revealed the following changes in the past 5 years:

A drop in the number of container veneer plants, offset by an increase in the number of other types of veneer plants.

A 15-percent increase in veneer log production.

A 22-percent increase in receipt of veneer logs and bolts at the plants.

Exports of veneer logs from the Northeast continued to overbalance imports.

# BACKGROUND

THE MAIN PURPOSE of the nationwide Forest Survey is to keep abreast of changes in the Nation's timber supply. This is done through periodic statewide forest inventories. However, when regional production data are needed for a single product, or statewide production data are required between inventories, the Forest Survey initiates industrial surveys to obtain these statistics.

In our 1969 survey of the veneer industry, only veneer plants that consume logs and bolts from states in the Northeastern Forest Experiment Station's territory (Connecticut, Delaware, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and West Virginia) were included in the survey. Therefore, veneer logs that were harvested and exported through log brokers or concentrators overseas, or logs imported from foreign countries and converted into veneer at local veneer plants, were not included in the survey. However, the survey did include log shipments to and from Canada.

In this report the 1963 statistics with which these latest data were compared were gathered during a similar veneer-log-production canvass of the eastern United States and reported in *Veneer Log Production and Receipts in Eastern United States, by State and Species, 1963* (USDA Forest Serv. Res. Note WO-6).

# PROFILE OF THE INDUSTRY

The veneer manufacturers in the Northeast can be separated into broad classes according to the industries they serve and the products they make. The following three classes of plants were identified in our survey: (1) commercial- and face-veneer manufacturers, who produce veneer for the plywood and furniture industries; (2) container-veneer manufacturers, who fabricate veneer boxes, baskets, and similar containers, mostly for the vegetable and fruit-growing and packing industries; and (3)

specialty-veneer manufacturers, who produce hundreds of items ranging from toothpicks to spoons and tongue depressors (table 1).

Sixty-nine veneer plants were operating in the Northeast in 1968:

| *Product* | *Plants (No.)* |
|---|---|
| Commercial and face veneer | 36 |
| Container veneer | 21 |
| Specialty veneer | 12 |

These plants are scattered throughout the Northeastern States. Some plants are located near veneer-log sources or product markets; others are located near major transportation networks and favorable labor markets. Because log requirements are more exacting for face and commercial veneer, these plant owners are willing to pay higher prices for raw materials and to transport logs from greater distances to their plants.

A major contributor to the growth of the commercial- and face-veneer segment of the industry came with the establishment of the Northeast's first softwood plywood plant in Maryland in 1966. This plant was responsible for much of the increase in veneer-log production reported between 1963 and 1968.

Most of the container-veneer plants, located in agricultural sections of the Northeast, procured their veneer logs and sold their products locally.

Nine of the 12 specialty-veneer plants in the Northeast in 1968 were in Maine. These plants provide a stable base for the State's wood-using industries, since their wood requirements and product outputs fluctuate very little from year to year.

# PRODUCT EMPHASIS SHIFTS

Though the total number of active veneer plants in the Northeast was the same in 1963 as in 1968, there has been a shift between classes of veneer plants:

| *Class of plant* | *1963 (No.)* | *1968 (No.)* |
|---|---|---|
| Commercial and face | 30 | 36 |
| Container | 27 | 21 |
| Specialty | 12 | 12 |
| All classes | 69 | 69 |

The number of container-veneer plant closings has been offset by the opening of new commercial- and face-veneer plants. Some closings of wood-container plants were due to automation within the agricultural industry on which the plants depended, or to the shifting of large blocks of agricultural land into other land uses. In other cases, the containers manufactured from wood veneer were no longer competitive with containers made from less expensive materials such as plastics and corrugated paper.

# PLANT RECEIPTS UP 22 PERCENT

Log receipts at veneer mills in the Northeast were over 154 million board feet (International 1/4-inch rule) in 1968. This represents a 22-percent increase over the 126 million board feet reported in 1963. Maryland, Pennsylvania, and Kentucky reported large gains in log receipts between 1963 and 1968: 260 percent, 172 percent, and 150 percent, respectively.

Overall receipts declined in five of the 14 Northeastern States and rose in six between 1963 and 1968. Connecticut and Rhode Island had no veneer plants, and therefore received no veneer logs. Massachusett's single plant produced African mahogany veneer until 1966, when it ceased operations.

Four states—Maine, Maryland, New York, and Vermont—accounted for 72 percent of the total volume of veneer logs

received in 1968. Maryland's plants received the largest quantity of commercial- and face-veneer logs (27 million board feet), New Jersey plants received the largest quantity of container-veneer logs (9 million board feet), and Maine plants received the largest quantity of specialty-veneer logs (25 million board feet).

## PRODUCTION UP 15 PERCENT

Veneer-log production in the Northeast in 1968 was over 175 million board feet (International ¼-inch rule). This represents an increase of nearly 23 million board feet or 15 percent more than the 153 million board feet reported in 1963. Major con-

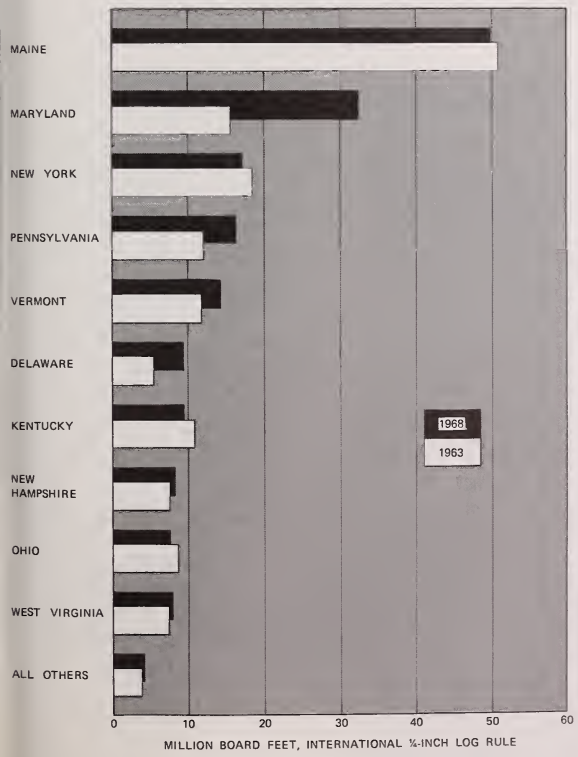



Figure 1. — Veneer-log production in the Northeast, by states, 1963 and 1968.

tributors to this increase were Maryland and Delaware, where production rose 104 percent and 64 percent respectively. Kentucky's production declined the most, from 11 million board feet in 1963 to 8 million board feet in 1968.

Fifty-six percent—over 98 million board feet—of the Northeast's veneer-log and bolt production in 1968 went to plants producing commercial and face veneer. The remaining 77 million board feet of production was divided between container-veneer plants (46 million board feet) and specialty-veneer plants (31 million board feet).

Maine was the largest producer of veneer logs in 1968, accounting for 28 percent of the territory's total production (fig. 1). Maryland was the second largest producer, accounting for 18.5 percent of the Northeastern total.

In both 1963 and 1968, the birches and yellow-poplar accounted for over 50 percent of the total volume of veneer logs produced (fig. 2). Much greater volumes of ash, basswood,

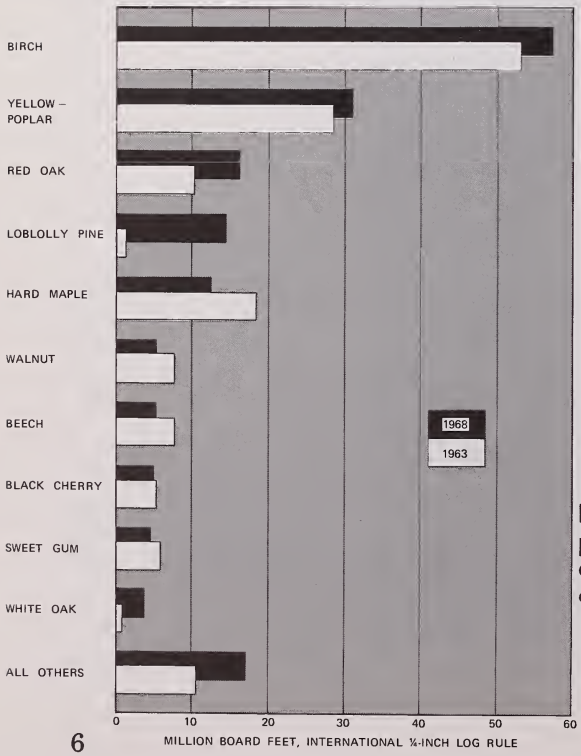



**Figure 2. — Veneer-log production in the Northeast, by species, 1963 and 1968.**

hickory, white oak, black tupelo, and loblolly pine veneer logs were being produced in 1968 than in 1963, while the production of beech and hard maple veneer logs decreased.

## INTERREGIONAL SHIPMENTS

In both 1963 and 1968, the volume of veneer logs shipped out of the Northeast exceeded log receipts from outside the region. This surplus of exports dropped from 26 million board feet (a 17-percent surplus) in 1963 to 21 million board feet (a 12-percent surplus) in 1968.

Though commercial- and face-veneer producers are willing to transport logs great distances, specialty- and container-veneer producers purchase most of their veneer logs close to their plants. Therefore in states like Maine, in which most of the Northeast's specialty-veneer plants are located, a larger percentage of the industry's log requirement comes from within the State (fig. 3).

Presumably those states like West Virginia, which are consuming a larger quantity of veneer logs than they produce and are providing very few of the veneer logs consumed within the state (32 percent in 1968), have the opportunity of furnishing greater quantities of logs to local veneer producers. This presupposes that the species and quality of veneer logs needed by local industry are available.

Generally the states along the Canadian border consumed a higher percentage of the veneer logs cut from within their state boundaries than did the more southerly states. One reason for this might be the restrictions imposed on the shipments of veneer logs to and from Canada.

One can trace the flow of logs between the 14 Northeastern States and surrounding regions. For example, although Kentucky's veneer-log production exceeded its consumption by only 36 percent in 1968, the State's veneer-log suppliers shipped 81 percent of their production to other states. Local veneer plants purchased 4.6 million board feet of veneer logs from neighboring states.

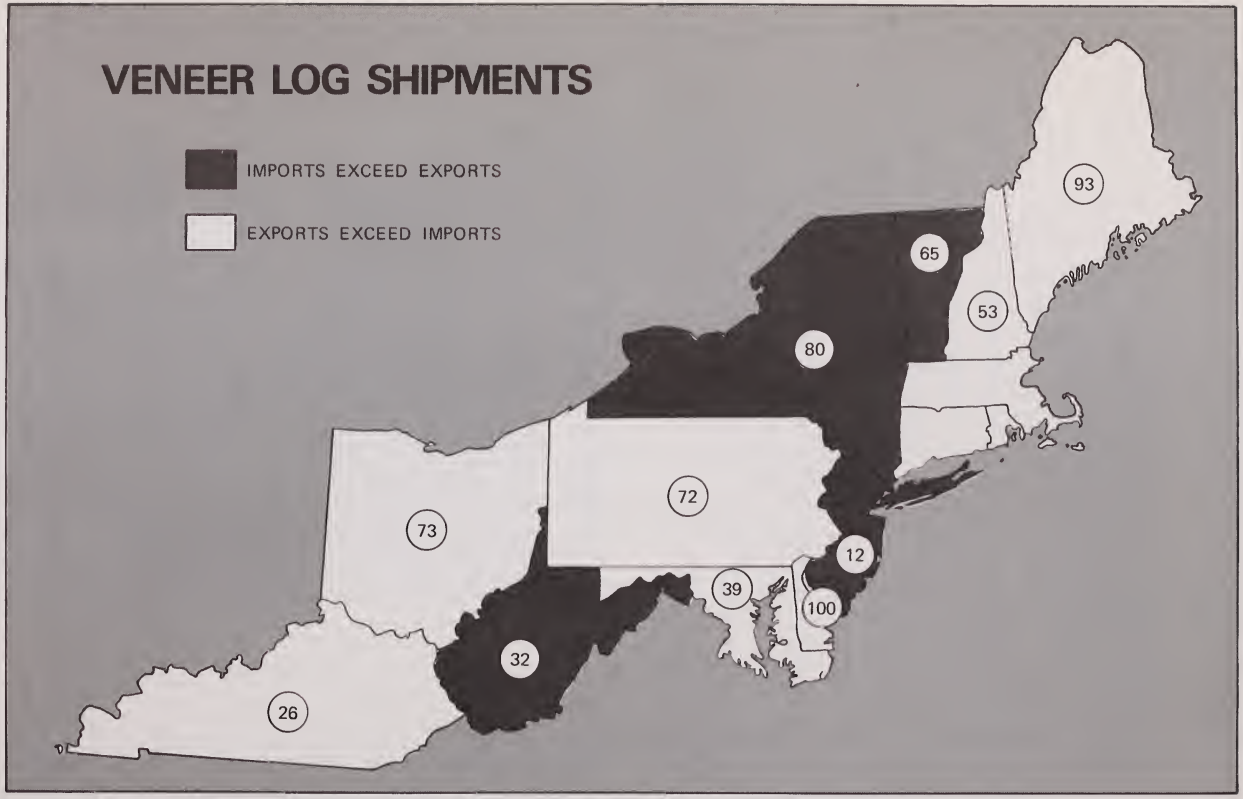



Figure 3.—Balance of veneer-log shipments for the States of the Northeast, 1968. The numbers indicate the percentage of the State's veneer-log consumption that originates in the State. Mass., R. I., and Conn. had no operating veneer plants.

Likewise in Maryland, large quantities of outgoing veneer-log shipments were partially replaced from out-of-state receipts.

Over 40 million board feet of veneer logs were shipped outside the 14 Northeastern States in 1968. More than half of this volume went to North Carolina, the hub of the southeastern furniture industry. Other important recipients of northeastern veneer logs were Indiana and Virginia. Nearly 4 million board feet went to Canada.

## LOG AVAILABILITY VARIES AMONG SPECIES

In the Northeast, estimates of sawtimber quality are normally expressed in terms of sawlog grades that are tied to lumber yields. Therefore volume estimates of veneer-quality material must be related to these sawlog grades or tree size. As each periodic forest survey is completed for a state, new log-quality information is published. In addition, resource data for all states in the Northeast were compiled for two specific years—1963 and 1968. Since these data included volumes in veneer-log-size trees for the major northeastern tree species, it was possible to relate these volumes to veneer-log production so that an estimate of the veneer timber supply could be made (table 2).

In 1963, more ash, hickory, and white oak volume was available in relation to the veneer-log harvest than any of the other species listed. By 1968, the veneer industry, recognizing that these species were relatively plentiful, was using them more. Thus, these species showed higher percentage production gains than other hardwoods. In contrast, black walnut and white birch were relatively scarce in 1963, and they showed a decline or nominal gain in 1968.

The available volume of loblolly pine timber per board foot of veneer logs produced in 1968 was lower than that of any of the other species. A shortage of timber suitable for producing softwood veneer logs may be developing in the Middle Atlantic States. In the future, softwood-veneer producers will probably have to procure a greater portion of their annual veneer-log requirements from neighboring regions.

Of the other species listed, black cherry, hard maple, sweetgum, and yellow-poplar seem to have been maintaining a more or less balance between supply and harvest between 1963 and 1968. Production increased slightly for yellow-poplar in 1968 as compared with 1963, and it decreased slightly for the other three species.

■

Table 1.—*Characteristics of the three classes of veneer plants in the Northeast, 1968*

| Characteristic | Class of veneer plant | | |
|---|---|---|---|
| | Commercial and face | Container | Specialty |
| Volume of log receipts | 2.2 million board feet per plant | 1.1 million board feet per plant | 2.6 million board feet per plant |
| Major species received | Red oaks, black cherry, and walnut | Yellow-polar, soft maple, and sweetgum | White birch and hard maple |
| Size of log procurement area | From 2- to 8-state area | From consuming or neighboring state | From within consuming state |
| Plant location | Evenly scattered throughout Northeast | Atlantic coastal plain or bordering Great Lakes | Mostly in Maine |
| Product market areas | Eastern population centers and Southeastern furniture industry | Local agricultural areas | Nationwide |

Table 2.—*Relationship of available timber volume* to veneer-log volume cut in the Northeast for selected species and years*

| Species | Board feet of resource per board foot cut | |
|---|---|---|
| | 1963 | 1968 |
| Pine, loblolly | 461 | 28 |
| Ash | 4,499 | 2,100 |
| Birch, white | 86 | 74 |
| Birch, yellow | 193 | 101 |
| Cherry, black | 323 | 367 |
| Hickory | 5,029 | 1,270 |
| Maple, hard | 565 | 563 |
| Oaks, red | 999 | 660 |
| Oaks, white | 5,176 | 1,687 |
| Sweetgum | 162 | 157 |
| Walnut, black | 60 | 78 |
| Yellow-poplar | 195 | 185 |

*Net board-foot volume in trees 15 inches and larger (11 inches and larger for white birch) on commercial forest land in the Northeast, January 1963 and January 1968. (Source: Timber Trends in the United States and National Timber Resource Update of 1967).

Table 3.—*Veneer-log and bolt production and receipt relationships in the Northeast, 1963 and 1968*

| State | Production | | | Receipts | | |
|---|---|---|---|---|---|---|
| | 1963 | 1968 | Change | 1963 | 1968 | Change |
| | *Million board feet*[1] | | *Percent* | *Million board feet*[1] | | *Percent* |
| Connecticut | 0.3 | 0.2 | — 26 | — | — | — |
| Delaware | 5.8 | 9.5 | + 64 | (D) | (D) | (D) |
| Kentucky | 11.2 | 8.4 | — 25 | 2.5 | 6.2 | +150 |
| Maine | 51.3 | 49.7 | — 3 | 42.9 | 44.7 | + 4 |
| Maryland | 15.9 | 32.4 | +104 | 8.1 | 29.2 | +260 |
| Massachusetts | 1.5 | 1.9 | + 28 | (2) | — | — |
| New Hampshire | 7.6 | 8.0 | + 5 | (D) | (D) | (D) |
| New Jersey | 1.3 | 1.5 | + 16 | 9.2 | 9.2 | — 1 |
| New York | 18.1 | 17.4 | — 4 | 15.6 | 18.1 | + 16 |
| Ohio | 8.6 | 7.9 | — 8 | 5.0 | 4.8 | — 4 |
| Pennsylvania | 12.2 | 16.5 | + 35 | 1.7 | 4.8 | +172 |
| Rhode Island | — | — | — | — | — | — |
| Vermont | 12.0 | 14.1 | + 18 | 22.6 | 19.1 | — 15 |
| West Virginia | 7.0 | 7.9 | + 13 | 6.3 | 8.7 | + 37 |
| All states | 152.8 | 175.4 | + 15 | 126.5 | 154.4 | + 22 |

[1] International ¼-inch log rule.
[2] One plant operated until 1966, producing African mahogany veneer.
(D) Data withheld to avoid disclosure for individual plants.

Table 4.—*Species composition of veneer logs cut in the Northeast, 1963 and 1968*

| Species | 1963 | | 1968 | | Change |
|---|---|---|---|---|---|
| | *Million bd. ft.*[1] | *Percent* | *Million bd. ft.*[1] | *Percent* | *Percent* |
| Ash | 0.5 | 0.3 | 1.0 | 0.6 | +112 |
| Basswood | 1.3 | .8 | 2.6 | 1.5 | +104 |
| Beech | 8.0 | 5.2 | 5.8 | 3.3 | — 28 |
| Birch | 53.3 | 34.9 | 57.3 | 32.6 | + 7 |
| Cherry | 6.0 | 3.9 | 5.2 | 3.0 | — 13 |
| Cottonwood | 1.5 | 1.0 | 1.5 | .8 | + 2 |
| Elm | 3.1 | 2.0 | 3.6 | 2.1 | + 16 |
| Hickory | .8 | .6 | 3.2 | 1.8 | +290 |
| Maple, hard | 18.3 | 12.0 | 12.8 | 7.3 | — 30 |
| Maple, soft | 1.8 | 1.2 | 2.2 | 1.3 | + 26 |
| Oak, red | 10.6 | 7.0 | 16.5 | 9.4 | + 55 |
| Oak, white | 1.4 | .9 | 4.3 | 2.4 | +214 |
| Sweetgum | 6.3 | 4.1 | 5.0 | 2.9 | — 20 |
| Sycamore | .8 | .5 | 1.2 | .7 | + 49 |
| Tupelo, black | .2 | .3 | .7 | .4 | +216 |
| Walnut | 7.8 | 5.1 | 6.0 | 3.4 | — 23 |
| Yellow-poplar | 28.4 | 18.5 | 31.3 | 17.9 | + 10 |
| Other hardwoods | 1.0 | .6 | 1.1 | .6 | + 17 |
| Total hardwoods | 151.1 | 98.9 | 161.3 | 92.0 | + 7 |
| Total softwoods | 1.7 | 1.1 | 14.1 | 8.0 | +716 |
| All species | 152.8 | 100.0 | 175.4 | 100.0 | + 15 |

[1] International ¼-inch log rule.

Table 5.—*Production of veneer logs in the Northeast, by states and receiving plant classes, 1968*

(Million board feet, International ¼-inch rule)

| State | Class of receiving veneer plant | | |
|---|---|---|---|
| | Commercial and face | Container | Specialty |
| Connecticut | 0.2 | — | — |
| Delaware | 6.2 | 3.3 | — |
| Kentucky | 4.3 | 4.1 | — |
| Maine | 26.8 | — | 22.9 |
| Maryland | 12.2 | 19.1 | 1.1 |
| Massachusetts | .8 | .3 | .8 |
| New Hampshire | 7.7 | (*) | .3 |
| New Jersey | .4 | 1.1 | — |
| New York | 13.3 | 2.3 | 1.8 |
| Ohio | 5.1 | 2.8 | — |
| Pennsylvania | 12.2 | 4.3 | — |
| Rhode Island | — | — | — |
| Vermont | 4.4 | 6.3 | 3.4 |
| West Virginia | 4.5 | 2.9 | .5 |
| All states | 98.1 | 46.5 | 30.8 |

* Less than 50 thousand board feet.

Table 6.—*Receipts of veneer logs in the Northeast, by states and plant classes, 1968*

(Million board feet, International ¼-inch rule)

| State | Class of veneer plant | | |
|---|---|---|---|
| | Commercial and face | Container | Specialty |
| Connecticut[1] | — | — | — |
| Delaware | (D) | (D) | (D) |
| Kentucky | 6.2 | — | — |
| Maine | 19.8 | — | 24.9 |
| Maryland | 27.1 | 2.1 | — |
| Massachusetts[1] | — | — | — |
| New Hampshire | (D) | (D) | (D) |
| New Jersey | (*) | 9.2 | — |
| New York | 13.6 | 1.3 | 3.2 |
| Ohio | 2.0 | 2.8 | — |
| Pennsylvania | 4.6 | 0.2 | — |
| Rhode Island[1] | — | — | — |
| Vermont | 8.2 | 7.6 | 3.3 |
| West Virginia | 8.7 | — | — |
| All states | 99.8 | 23.2 | 31.4 |

D Data withheld to avoid disclosure for individual plants.
[1] No veneer plants operating.
* Less than 50 thousand board feet.

Table 7.—*Flow of veneer logs between states in the Northeast, 1968*

(Million board feet, International ¼-inch rule)

| State | Production | Interstate shipments[1] | | Apparent consumption |
|---|---|---|---|---|
| | | Exports | Receipts | |
| Connecticut | 0.2 | 0.2 | — | — |
| Delaware | 9.5 | (D) | (D) | (D) |
| Kentucky | 8.4 | 6.8 | 4.6 | 6.2 |
| Maine | 49.7 | 8.1 | 3.1 | 44.7 |
| Maryland | 32.4 | 21.1 | 17.9 | 29.2 |
| Massachusetts | 1.9 | 1.9 | — | — |
| New Hampshire | 8.0 | (D) | (D) | (D) |
| New Jersey | 1.5 | .4 | 8.1 | 9.2 |
| New York | 17.4 | 2.8 | 3.5 | 18.1 |
| Ohio | 7.9 | 4.4 | 1.3 | 4.8 |
| Pennsylvania | 16.5 | 13.0 | 1.3 | 4.8 |
| Rhode Island | — | — | — | — |
| Vermont | 14.1 | 1.7 | 6.7 | 19.1 |
| West Virginia | 7.9 | 5.1 | 5.9 | 8.7 |
| All states | 175.4 | — | — | 154.4 |

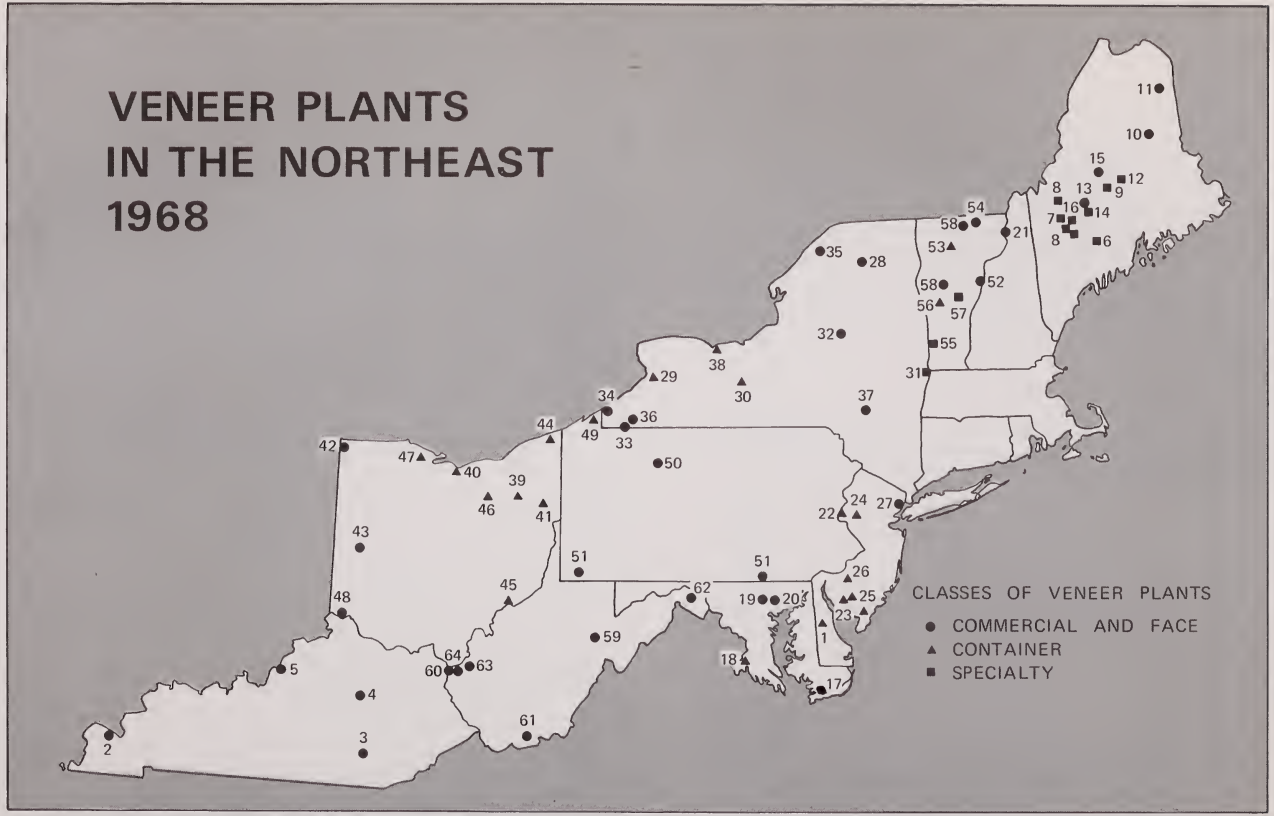
D Data withheld to avoid disclosure for individual plants.
[1] Includes shipments to and from Canada.

Table 8.—*Extraregional recipients of northeast veneer logs, 1968*

(Million board feet, International ¼-inch log rule)

| State or Province | Volume received |
|---|---|
| Indiana | 5.8 |
| Michigan | (*) |
| Missouri | 1.9 |
| North Carolina | 21.0 |
| Ontario, Canada | .7 |
| Quebec, Canada | 3.1 |
| Tennessee | 1.4 |
| Virginia | 6.5 |
| All states and provinces | 40.5 |

* Less than 50 thousand board feeet.




Location of the active veneer plants in the Northeast, 1968. Numbers are keyed to list of plants on opposite page.

## Veneer Plant Locations

*Delaware*

1 Thomas Minner, Jr. and Son, Felton

*Kentucky*

2 Central States Veneer Co., Paducah
3 Cumberland Forest Products Co., London
4 The Tomlinson Co., Winchester
5 Wood Mosaic Corp., Louisville

*Maine*

6 Diamond National Corp., Oakland
7 General Manufacturing Co., Phillips
8 Forester Manufacturing Co., Wilton
(plants in E. Wilton, Strong, and Stratton)
9 Hardwood Products Co., Guilford
10 J. M. Huber Co., Patten
11 Indian Head Plywood Co., Presque Isle
12 National Wood Products Corp., Brownville
13 Scovill Manufacturing Co., Bingham
14 Solon Manufacturing Co., Solon
15 Stover Plywood Corp., Greenville
16 Strong Wood Turning Corp., Strong

*Maryland*

17 Chesapeake Bay Plywood Corp., Pocomoke City
18 Mulco Products Inc., Pomonkey
19 Stenerson Mahogany Corp., Cockeysville
20 Veneer Inc., Cockeysville

*New Hampshire*

21 The Brown Co., North Stratford

*New Jersey*

22 Finger Basket Co., Franklinville
23 Georgia-Pacific Corp., Bridgeton
(plants in Vineland and Bridgeton)
24 J. Hoffman and Son, Califon
25 R. B. Mason & Son, Woodbine
26 Rapp Package Co., Phillipsburg
27 I. T. Williams & Son, Carteret

*New York*

28 Adirondack Plywood Corp., Tupper Lake
29 E. Aurora Basket Co., Wales
30 Barden and Robeson Corp., Penn Yan
31 W. J. Cowee, Berlin
32 Jamestown Veneer Co., Poland
33 Knight Veneer and Panel Corp., Falconer
34 Ripley Lbr. Co., Ripley
35 Riverside Veneer Co., Heuvelton
36 Robbins Veneer Co., Falconer
37 Williamson Co., Fleischmans
38 Webster Basket Co., Webster

*Ohio*

39 Asplin Basket Co., Hartville
40 Berlin Fruit Co., Berlin Heights
41 Decort Basket Co., Salem
42 Edon Manufacturing Co., Edon
43 Hartzell Industries, Inc., Piqua
44 Kingsville Basket Co., Kingsville
45 Marietta Fruit Package and Lbr. Co., Marietta
46 McIntire Basket Co., Creston
47 Ottawa Basket Co., Elmore
48 P. V. Shoe Walnut Co., Cincinnati

*Pennsylvania*

49 Greenfield Basket Co., Northeast
50 Weyerhaeuser Co., Ridgeway
51 Williamson Veneer Co., New Freedom
(plants in New Freedom and Waynesburg)

*Vermont*

52 Bradford Veneer and Panel Co., Bradford
53 Consolidated Electronics Ind., Morrisville
54 Indianhead Plywood Corp., Newport
55 Lewis Bros. Inc., West Rupert
56 Rutland Plywood Corp., Center Rutland
57 Vermont Pacific Corp., Bethel
58 Weyerhaeuser Co., Hancock
(plants in Hancock and Troy)

*West Virginia*

59 Allegheny Lumber Co., Elkins
60 Breece Veneer Co., Kenova
61 The Dean Co., Princeton
62 Martinsburg Veneer Corp., Martinsburg
63 Ohio Valley Wood Products Corp., Ona
64 Wood Mosaic Corp., Huntington

## ACKNOWLEDGMENT

THE SUCCESS of a survey depends upon the percentage of responses received from the population sampled and the effort put forth by the respondents in providing information. We are grateful to the Northeast's veneer industry for their immediate and accurate responses. All veneer plants known to be operating in 1968 in the Northeast provided data for this survey.

THE FOREST SERVICE of the U.S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.